David Carrett

## STATE OF MISSOURI Matt Blunt, Governor • Doyle Childers, Director

## DEPARTMENT OF NATURAL RESOURCES

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July 19, 2006

CERTIFIED MAIL – 7001 2510 0005 3344 3309 RETURN RECEIPT REQUESTED



Mr. Thomas S. Sanicola Modine Manufacturing Company 1500 DeKoven Avenue Racine, WI 53403-2552

RE: Site Investigation Work Plan, Modine Manufacturing Company (Modine), Camdenton Missouri, Facility, June 2006

Dear Mr. Sanicola:

The Missouri Department of Natural Resources has reviewed the "Site Investigation Work Plan, Modine Manufacturing Company, Camdenton, Missouri" submitted to the department on June 15, 2006. This document was submitted pursuant to the department's letter dated April 7, 2006. Modine must revise the work plan and address the following comments prior to receiving approval.

## **General Comment**

The purpose of the soil sampling work plan is to determine the presence or absence of soil contamination beneath the manufacturing building and, if contamination exists, determine if it is a contributing source to groundwater contamination at the Mulberry Well. Therefore, a sufficient number of appropriately placed soil samples must be collected to put these issues to rest. The primary areas of interest are in the vicinity of the former vapor degreaser and the former mudpits. The work plan proposes collecting four soil samples along a horizontal boring drilled beneath the building floor. The department agrees with the locations of the four soil samples; however, the department feels that a few additional soil samples are necessary. Modine shall collect a fifth soil sample along the horizontal boring. The sample should be located between the 15-foot sample and the 100-foot sample.

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In addition, Modine shall collect two additional soil samples on the inside of the west wall of the manufacturing building in the vicinity of Mudpit #1 and Mudpit #3. Selection of these sampling locations is based on the presence of trichloroethylene contaminated soil remaining in place at the base of the excavation and along the outside of the west wall of the manufacturing building.

## **Specific Comments**

- 1. <u>Section 2.1, Pre-Investigation Activities, Page 2:</u> The work plan states that vacuum extraction equipment will be used to clear utility locations before horizontal drilling activities begin. Please explain how vacuum extraction will be used to clear utilities.
- 2. <u>Section 2.1, Pre-Investigation Activities, Page 2:</u> Once the utilities are cleared and the boring path and sampling locations are finalized, Modine shall contact the department for approval of the final sampling locations.
- 3. Section 2.2, Horizontal Boring Activities, Page 2: The work plan states that Bio Bore<sup>TM</sup>, a boidegradable drilling rig fluid will be used during drilling of the horizontal boring. Soil boring activities and soil sample collection should be conducted in such a manner to preserve the integrity of the soil samples. Drilling fluid or water must not come in contact with the desired sample section as it could dilute or increase sample results. Modine shall provide additional detail on the use of Bio Bore<sup>TM</sup> during drilling and how it will or will not affect the integrity of the soil samples.
- 4. Section 2.3, Subsurface Sampling, Page 3: The work plan states that the sampling location will be determined by tracking procedures conducted in the interior of the manufacturing building. Modine shall explain these "tracking procedures" in more detail. Specifically, how will the physical location of the advancing drill bit in the map sense be demonstrated and how will the actual sampling location be documented? In other words, how will Modine know they are sampling the intended map location?
- 5. Section 2.3, Subsurface Sampling, Page 3: The work plan states that a split spoon sampling device will be used to collect the soil samples. However, the work plan does not specify the type of sampling container that will be used or the method of transferring the sample from the split spoon device to the sampling container. The work plan should specify if soil will be placed in clean glass jars or if En Core® or another discrete soil sampling method will be used. Also, it is advisable that Modine fill two sample containers at each location. This is to ensure that if something happens to one sample container then there will be a spare sample on which to run analyses.
- 6. <u>Section 2.3, Subsurface Sampling, Page 3:</u> To the extent feasible, the plan should specify collection/analysis of a sample(s) of any subgrade water that is encountered during boring installation.

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- 7. Section 3.2, Sample Management Procedures, Page 4: The sample labeling example is incorrect. The text states "...the sample from point that is 50 feet of the total 200-foot boring extent will be labeled MO-HB-100' (MO-Modine, HB-horizontal boring, 100'-10 feet of the 200 foot total)." Either the "50 feet" or the "100 feet" should be changed accordingly.
- 8. Section 4.0, Project Schedule, Page 6: In accordance with Section X. of the Order, Modine shall notify the department 15 days prior to conducting work to allow the department personnel to observe sampling activities described in the work plan.

Modine has 30 days from receipt of this letter to respond to the above comments and submit a revised work plan. If you have any questions, feel free to contact me at the Missouri Department of Natural Resources, 7545 South Lindbergh, Suite 210, St. Louis, MO 63125-4839, or by phone at (314) 416-2960.

Sincerely,

HAZARDOUS WASTE PROGRAM

And for CKM

Christine Kump-Mitchell, P.E.

Environmental Engineer

**Permits Section** 

CKM:mj

c: Mr. John Hooker, SECOR

Mr. David Garrett, U.S. EPA, Region VII

Ms. Shelley Woods, Attorney General's Office